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(54) WARMING DEVICE OF PRINTING CYLINDER

(57) Abstract:

PURPOSE: To uniformly apply ink onto the outer peripheral surface of a printing cylinder thereby to improve printing quality, by flowing a warming fluid along the inner peripheral surface of said printing cylinder during the rotation thereof, so that the outer peripheral surface of said printing cylinder is warmed.

CONSTITUTION: During the operation of a gravure printing machine 10, warm water fed within a small diameter pipe 32 flows out to an inside passage 16A in a central shaft 16 of rotation, passing through a communicating hole 16B, to enter into a gap 24B and further into a passage 14 of warm fluid. When the warm water runs in the heating fluid passage 14 of a spiral shape, it warms an inside surface 12A in a circumferential direction of a printing cylinder 12 thereby to warm ink adhered to the outer periphery of the printing cylinder 12. The water running out from the left end of the passage 14 passes from a gap 24C through a communicating hole 16C to the inside passage 16A. Then, the warm water passes the outside of the small diameter pipe 32 to an outlet 38B. Therefore, the outer peripheral surface of the printing cylinder 12 is always warmed during the operation thereof, whereby an increase in the viscosity of adhered ink due to cooling can be prevented.

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